



EM SCIENCE

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MATERIAL SAFETY DATA SHEET

(Approved by U.S. Department of Labor "Essentially Similar to Form OSHA-20")

SECTION 1		NAME & PRODUCT	
Chemical Name:	Postassium Cyanide		Catalog Number:
		PX1435, PX1440	
Trade Name & Synonyms:	CA #151-50-8	Chemical Family:	
Hydrocyanic Acid, Potassium Salt; Cyanide of Postassium		Inorganic Salt	
Formula:	KCN		Formula Weight:
		65.12	
SECTION 2		PHYSICAL DATA	
Boiling Point, 760 mm Hg (°C)		Specific Gravity (H ₂ O = 1) @16°C	1.52
Melting Point (°C)	634	Solubility in H ₂ O, % by wt. at 20°C	71.6
		25°C	
Vapor Pressure at 20°C		Appearance and Odor white crystals faint	
Vapor Density (air = 1)		almond odor.	
Percent Volatiles by Volume		Evaporation Rate (Butyl Acetate = 1)	
		JUN 18 85	
SECTION 3		FIRE AND EXPLOSION HAZARD DATA	
Flash Point (test method)	non-flammable	Flammable Limits	Lel
Extinguishing Media Do not use CO ₂ ! Cool containers with water.			
Special Hazards and Procedures Contact with acids forms highly toxic flammable HCN gas.			
Unusual Fire and Explosion Hazards			
SECTION 4		REACTIVITY DATA	
Stable	X	Conditions to Avoid	
Unstable		Forms explosives with chlorates, nitrite, nitrogen trichlorides and ammonia.	
Materials to Avoid			
(X) Water	() Acids	() Bases	(X) Corrosives
() Other (specify)	(X) Oxidizers		
Hazardous Decomposition Products cyanides, cyanic acid			
SECTION 5		SPILL OR LEAK PROCEDURES AND DISPOSAL	
Steps to be Taken in Case Material is Released or Spilled		Provide ventilation, gather solids in closed containers. Decontaminate minor spills with hypochlorite solution.	
Waste Disposal Method Dispose in accordance with EPA and other applicable regulations.			

We believe the data contained herein is factual, however, it is offered solely for your consideration, investigation, and verification.
Do not take as a warranty.

SECTION 6**HEALTH HAZARD DATA**

Threshold Limit Value TLV: 5 mg/m³

Highly poisonous by ingestion (<250 mg, adult lethal dose).

Absorbed by the body through the skin.

Effects of Overexposure Cyanide prevents cells of the body from using oxygen. Causes headache, dizziness, weakness, profuse ineffective breathing and nausea followed by weak, irregular heartbeat, unconsciousness, coma and death. On contact irritating and corrosive to tissue.

First Aid Procedures Eyes: Flush with copious amounts of water including under eye lids and seek immediate ophthalmologic medical care!
Skin: Remove clothing and flush area with large amounts of water. Watch for toxic symptoms. Inhalation: Remove victim to fresh air, restore and support breathing.
Ingestion: Give conscious victim 1 pint of 1% sodium thiosulfate soln., induce vomiting. In all instances seek immediate medical attention!

SECTION 7**SPECIAL PROTECTION INFORMATION**

Ventilation, Respiratory Protection, Protective Clothing, Eye Protection

Provide ventilation to meet TLV requirements. Canister type respirator suitable for KCN and HCN or self-contained breathing equipment. Avoid contact, wear gloves impervious to cyanide gas and appropriate protective clothing.

SECTION 8**SPECIAL HANDLING AND STORING PRECAUTIONS**

Store in dry-cool, well ventilated area in air-tight containers, away from acids and oxidizers. Avoid inhalation of cyanide dust, mist or vapors and adsorption through skin.

SECTION 9**HAZARDOUS INGREDIENTS**

(refer to section 3 through 8)

Cyanide

SECTION 10**OTHER INFORMATION**

Workers must exercise meticulous hygienic practices!

EMERGENCY PHONE NUMBER (513) 631-0445

AUTHORIZED SIGNATURE Bruce Lane

DATE ISSUED: 11/82

DATE REVISED: _____

MC/B 1181

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**SPECTRUM CHEMICAL MFG. CORP.**

14422 S. SAN PEDRO STREET / GARDENA, CALIFORNIA 90248 • TEL (713) 516-8000 • TELEX: 182395

MATERIAL SAFETY DATA SHEET

DP 7950-30

SECTION I

PRODUCT NAME Potassium Cyanide

RECEIVED

SIZE

250 g & 1 kg

CHEMICAL NAME Potassium Cyanide

JUL 3 1985

FORMULA KCN

MILLHORN

MANUFACTURER SPECTRUM CHEMICAL MFG. CORP.

ADDRESS 14422 So. San Pedro Street, Gardena, CA 90248

FOR INFORMATION ON HEALTH HAZARDS CALL

Transp. Fire Sfty.: (800) 424-9300

Poisoning:

(213) 664-2121

FOR OTHER INFORMATION CALL (213) 516-8000

INFORMATION EFFECTIVE AS OF

7-25-80

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT(S)

%

TLV (Units)

Not Applicable

SECTION III PHYSICAL DATA

MELTING

BOILING POINT (°F) 1173°F (634°C)

SPECIFIC GRAVITY (H₂O=1)

1.52

VAPOR PRESSURE (mm Hg)

Negligible

PERCENT VOLATILE
BY VOLUME (%)

Negligible

VAPOR DENSITY (AIR=1)

2.2

EVAPORATION RATE
(=1)

Not Applicable

SOLUBILITY IN WATER

Appreciable - decomposes

APPEARANCE AND ODOR

White, amorphous, deliquescent powder - odor of bitter almond

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method Used)

* none

FLAMMABLE

LIMITS

None

LeI

UeI

EXTINGUISHING MEDIA

CO₂, dry chemical

SPECIAL

FIRE-FIGHTING

PROCEDURES

Approved self-contained breathing apparatus should be worn

UNUSUAL FIRE AND
EXPLOSION HAZARDS

None

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

3 Mg/M³ as CN - Skin (ACGIH, 1979)

EFFECTS OF OVEREXPOSURE Inhalation: eyes, skin and ingestion: Causes irritation and is readily absorbed. Low concentrations may cause headache, dizziness, nausea and vomiting. High concentrations causes rapid heartbeat, rapid breathing then slow and irregular heart palpitations, unconsciousness, convulsions, paralysis, and death.

EMERGENCY AND FIRST-AID PROCEDURES Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician. Eyes and Skin: Immediately flush areas of contact with plenty of water for at least 15 minutes and get prompt medical attention. Remove contaminated clothing and shoes immediately. Ingestion: Induce vomiting by giving 2 glasses of water and touch back of throat with finger or blunt object. Call a physician. If able for any of the above exposures the patient should breath the content of amyl nitrite for 15 to 30 seconds or each minu

SECTION VI REACTIVITY

TA

STABILITY	UNSTABLE X	CONDITIONS TO AVOID Proter and moist air
	STABLE	

INCOMPATIBILITY (Materials to avoid) Strong oxidizers, acids, metals

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition or burning may produce carbon monoxide and/or carbon dioxide, NOx

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID

May Occur	Will Not Occur X
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SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN Wearing suitable protective clothing, sweep material onto paper. Place in fiber carton and incinerate. Wash spill area well with soap and water.

WASTE DISPOSAL METHOD Wearing suitable protective clothing, make up small packages in paper or other flammable materials and incinerate. Federal, State, and local laws take precedence.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type) An approved self-contained breathing apparatus, if necessary.

VENTILATION	LOCAL EXHAUST	Yes	SPECIAL	No
	MECHANICAL (general)	Yes	OTHER	No

PROTECTIVE GLOVES	Yes	EYE PROTECTION	Yes
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OTHER PROTECTIVE EQUIPMENT As necessary to prevent skin contact.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Absorbs CO₂ and H₂O from air and decomposes slowly.

OTHER PRECAUTIONS Wash thoroughly after handling. Note to physicians: If patient has not responded to amyl nitrite, inject intravenously 10 ml of a 3% solution of sodium nitrite at a rate not greater than 2.5 to 5.0 ml per minute. Follow directly with 50 ml of a 25% solution of sodium thiosulfate at the same rate by the same route. Keep patient under observation. If signs of poisoning persist or reappear, repeat nitrite and thiosulfate injections 1 hour later in one-half of the original dose.